



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,026	10/12/2001	Clark E. Robison	2000-IP-000882 U1 USA	3733

7590

03/03/2003

Peter V. Schroeder  
CRUTSINGER & BOOTH  
1601 Elm Street, Suite 1950  
Thanksgiving Tower  
Dallas, TX 75201

EXAMINER

SMITH, MATTHEW J

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 03/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/977,026

Applicant(s)

ROBISON ET AL.

Examiner

Matthew J. Smith

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) 65-131 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-41 and 43-64 is/are rejected.
- 7) ☐ Claim(s) 42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Art Unit: 3672

In response to the restriction, group I., claims 1-64, drawn to a mechanical perforator, classified in class 166, subclass 298 will be prosecuted in this Office action. Group II., claims 65-131, drawn to a pre-perforated pipe, classified in class 166, subclass 376, are cancelled.

### ***Specification***

The disclosure is objected to because of the following informalities: No brief description of Fig. 8 on page 5.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 63 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim recites "extension" plug which should be —expansion— plug. Consideration for patentability will use expansion.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3672

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, 10, 12, 17, 19-21, 25, 28, 31, 33, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Teplitz (3026936). Teplitz discloses a method of perforating a cased wellbore having cement to establish fluid communication comprising perforating with a mechanical perforator (col. 3, line 21); igniting a propellant to perforate the cement (col. 4, lines 21-27); acid stimulation (col. 5, lines 4-6); perforate into the cement (col. 3, lines 50-53); and perforating with a propellant stick (col. 4, lines 31-32);

Claims 51, 52, 54, 56, 59, 60, and 63 are rejected under 35 U.S.C. 102(b) as being anticipated by Kafader (462800). Kafader discloses positioning a perforator A and moving needles or punches H from a retracted to an extended position and back via actuation means or expansion plug D.

Claims 41, 43, 44 and 47-50 rejected under 35 U.S.C. 102(b) as being anticipated by Graham (1162601). Graham discloses a perforator comprising three toothed wheels 20, 21 with extendable teeth, movable between an extended and retracted positions, means 25 for moving the wheels, and a locking mechanism 15 (page 2, lines 23-43).

Art Unit: 3672

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims ~~1~~, 4, 5, 13, 19, 22, 23, ~~24~~, and 35 are rejected under 35 U.S.C.

103(a) as being unpatentable over Teplitz (3026936) in view of Graham (1162601). Teplitz discloses cementing casing, perforating with a mechanical perforator, and igniting a propellant. Teplitz does not disclose a toothed perforator. Graham shows a toothed perforator 10.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the Graham toothed perforator in the Teplitz device since any mechanical perforator is acceptable to Teplitz (col.3, line 17).

Claims 6, 24, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teplitz (3026936) in view of Kafader (462800). Teplitz discloses cementing casing, perforating with a mechanical perforator into the cement, and igniting a propellant. Teplitz does not disclose a needle type perforator. Kafader presents a needle type perforator A.

Art Unit: 3672

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the Kafader needle perforator in the Teplitz device since any mechanical perforator is acceptable to Teplitz (col.3, line 17).

Claims ~~1~~, 8, 14, ~~15~~, 26, ~~28~~, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teplitz (3026936) in view of Snider et al. (6082450).

Teplitz discloses cementing casing, perforating with a mechanical perforator, and igniting a propellant. Teplitz does not disclose a sleeve type propellant. Snider et al. reveal a sleeve type propellant 40.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the Snider et al. sleeve type propellant 40 in the Teplitz device since any propellant is acceptable to Teplitz (col. 4, lines 21-27).

Claims ~~4~~, 9, 11, 15, 16, ~~17~~, 27, 29, ~~31~~, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teplitz (3026936) in view of Messmer (3319395). Teplitz discloses cementing casing, perforating with a mechanical perforator, and igniting a propellant. Teplitz does not disclose expelling abrasive. Messmer divulge abrading a formation via igniting a propellant 34.

Art Unit: 3672

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use an abrasive in the Teplitz device since any means to increase permeability is acceptable to Teplitz (col. 5, lines 1-3).

ND  
Claims ~~44~~, 18, ~~19~~, 30, 32, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teplitz (3026936) in view of Forsyth et al. (6029748). Teplitz discloses cementing casing, perforating with a mechanical perforator into the cement, igniting a propellant, and acid stimulation. Teplitz does not disclose expanding casing. Forsyth et al display expanding casing.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use an expandable casing in the Teplitz operation, as displayed by Forsyth et al., in order to make the casing conform to the borehole (col. 1, lines 18-21).

ND  
Claims ~~44~~, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham (1162601) in view of Teplitz (3026936). Graham shows a perforator having toothed wheels 21. Teplitz (3026936) discloses cemented casing and perforating the cement (col. 3, line 38-39).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to cement the casing and perforate the cement using the Graham toothed perforator in the Teplitz device since any mechanical perforator is acceptable to Teplitz (col.3, line 17).

Claims 41, 53, 59 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kafader (462800) in view of Kinley (2426106). Kafader discloses positioning a perforator A and moving needles or punches H from a retracted to an extended position and back via actuation means or expansion plug D. Kafader does not disclose a shearable connection for the needles. Kinley suggests fabricating needles or bushings 30 punched through the casing and shearable from the perforator via 31.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to make the Kafader needles or punch shearable, as suggested by Kinley in order to provide a clean and clear cut (col. 4, lines 6-8).

Claims 53, 55, 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kafader (462800) in view of Kinley (2426106) as applied to claim 53 above, and further in view of Reistle, Jr. (2832415). The combination teaches shearable needles. The combination does not teach dissolving the needles. Reister, Jr. point out dissolving an acid soluble plug including a needle (col. 1, lines 30-35).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to make the Kafader-Kinley combination dissolvable in order to provide clean perforations (col. 1, line 35).



Claims 57, 58, 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kafader (462800) in view of Teplitz (3026936).. Kafader discloses positioning a perforator A and moving needles or punches H from a retracted to an extended position and back via actuation means or expansion plug D. Kafader does not disclose cemented casing or perforating into the cement sheath. Teplitz (3026936) discloses cemented casing and perforating the cement (col. 3, line 38-39).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to cement the casing and perforate the cement using the Kafader perforator in the manner disclosed in Teplitz since any mechanical perforator is acceptable to Teplitz (col.3, line 17).

***Allowable Subject Matter***

Claim 42 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Smith whose telephone number is 703-305-5135. The examiner can normally be reached on M-F, 9-4.

Art Unit: 3672

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 703-308-2151. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-308-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1113.

MJS *MJS*  
20 February 2003

*DAVID BAGNELL*  
DAVID BAGNELL  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600